WE CLAIM:

1. A recombinant nucleic acid comprising a gene encoding a first signal peptide operably linked to a gene encoding an allergen wherein the first signal peptide mediates the translocation of the allergen into the endoplasmic reticulum.

2. The nucleic acid of claim 1 which is DNA.

3. The nucleic acid of claim 1 or claim 2 wherein the first signal peptide is the N-terminal signal peptide of LAMP-1, human tissue plasminogen activator, LAMP-II, DEC-205, P-selectin, tyrosinase, GLUT4, endotubin or Nef protein or a functional equivalent thereof.

4. The nucleic acid of any one of claims 1 to 3 wherein the first signal peptide is the N-terminal signal peptide of LAMP-1 or human tissue plasminogen activator or a functional equivalent thereof.

5. The nucleic acid of any one of claims 1 to 4 further comprising an operably linked gene encoding a second signal peptide wherein the second signal peptide targets the allergen to an endosome or lysosome.

6. The nucleic acid of claim 5 wherein the second signal peptide is the C-terminal lysosome or endosome targeting sequence of LAMP-1, human tissue plasminogen activator, LAMP-II, DEC-205, P-selectin, tyrosinase, GLUT4, endotubin or Nef protein or a functional equivalent thereof.

7. The nucleic acid of claim 6 wherein the second signal peptide is the transmembrane and cytoplasmic domain of LAMP-1.

8. The nucleic acid of any one of claims 1 to 7 which encodes the allergen Blo t 5, Blo t 1, Der p 1 or Der p 2, Der p 3, Der f1, Der f2, Der f3, a T helper cell epitope

thereof, or a antigenic fragment thereof containing one or more T helper cell epitope or a functional equivalent.

9. The nucleic acid of any one of claims 1 to 8 comprising the sequence of SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6 or SEQ ID NO:7.

10. The nucleic acid of any one of claims 1 to 9 which is a plasmid.

11. The nucleic acid of any one of claims 1 to 10 further comprising an operably linked promoter.

12. The nucleic acid of claim 11 wherein the promoter is human CMV promoter.

13. The nucleic acid of claim 11 or 12 which is an expression vector.

14. A vaccine comprising a recombinant nucleic acid according to any one of claims 1 to 13.

15. A composition comprising a recombinant nucleic acid according to any one of claims 1 to 13 and a pharmaceutically acceptable carrier or diluent.

16. A method for immunization against an allergen comprising administering to a subject in a first phase a recombinant nucleic acid according to any one of claims 1 to 13; and in a second phase administering the allergen to the subject.

17. The method of claims 16 wherein the allergen is administered in combination with an adjuvant.

18. The method of claim 16 or 17 wherein the nucleic acid is administered in the first phase over a period of time sufficient to induce long term immune memory in the subject.

19. The method of claim 18 wherein multiple doses of the nucleic acid is administered in the first phase over a period of about a year.

20. The method of any one of claims 16 to 19 comprising administering the allergen to the subject intraperitoneally and subsequently by aerosol.

21. The method of any one of claims 16 to 20 wherein the nucleic acid is administered orally in the first phase.

22. The method of claim 22 comprising administering chitosan nanoparticles containing the nucleic acid.

23. The method of any one of claims 16 to 20 wherein the nucleic acid is administered by intramuscular or intradermal injection.

24. A method for immunization against an allergen comprising administering to a subject a nucleic acid comprising an expressible allergen gene in a first phase over a period of about a year so as to induce long term immune memory in the subject; and administering the allergen to the subject in a second phase.

25. A method for treating or preventing an allergic reaction in a subject comprising administering a recombinant nucleic acid according to any one of claims 1 to 13 to the subject.

26. The method of claim 25 wherein the recombinant nucleic acid is administered orally or by intramuscular or intradermal injection..

27. The method of claim 25 or 26 wherein the allergic reaction is asthma or rhinitis

28. Use of a recombinant nucleic acid according to any one of claims 1 to 13 for immunization against an allergen.

29. Use of a recombinant nucleic acid according to any one of claims 1 to 13 for the manufacture of a medicament for immunization against an allergen.

30. Use of a recombinant nucleic acid according to any one of claims 1 to 13 to treat or prevent an allergic reaction.

31. Use of a recombinant nucleic acid according to any one of claims 1 to 13 for the manufacture of a medicament to treat or prevent an allergic reaction.

32. The use according to claim 30 or 31 wherein the allergic reaction is asthma or rhinitis